

What is claimed

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Patent Claims

- Sub A1*
1. Method for determining spectral speech characteristics in a spoken expression,
 - a) whereby the expression is digitalized;
 - 5 b) whereby the digitalized expression is subjected to a wavelet transformation;
 - c) whereby the speaker-specific characteristics are defined on the basis of different transformation stages of the wavelet transformation.
 - 10 2. Method according to claim 1, whereby a windowed transformation of the digitalized expression into a frequency domain is implemented before the wavelet transformation.
 - 15 3. Method according to claim 2, whereby the transformation into the frequency domain is implemented with fast Fourier transformation.
 4. Method according to one of the preceding claims, whereby a low-pass part and a high-pass part of a signal to be transformed are determined in each stage of the wavelet transformation.
 5. Method according to one of the preceding claims, whereby a high-pass part is subdivided according to a real part and an imaginary part.
 - 20 6. Method according to one of the preceding claims, whereby the wavelet transformation comprises a plurality of transformation stages, whereby the last transformation stage supplies a constant part of the expression in a repeated low-pass filtering corresponding to the plurality of transformation stages.

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Concl.

7. Method according to one of the preceding claims, whereby the speaker-specific characteristics are determined by
- a) a basic frequency of the spoken expression;
 - b) spectral envelope;
 - 5 c) a huskiness of the spoken expression.
8. Employment of the method according to one of the claims 1 through 7 for speech synthesis, whereby individual speaker-specific characteristics are adapted in view of a natural sounding concatenation of speech sounds.
9. Employment of the method according to one of the claims 1
- 10 through 7 for speech synthesis, whereby those speech sounds from a predetermined data set that assure a natural sounding concatenation of speech sounds are selected on the basis of individual spectral speech characteristics.
10. Arrangement for determining spectral speech characteristics in a spoken expression, comprising a processor unit that is configured such that the
- 15 following steps can be implemented:
- a) the expression is digitalized;
 - b) the digitalized expression is subjected to a wavelet transformation;
 - c) the speaker-specific characteristics are defined on the basis of different transformation stages of the wavelet transformation.